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Exercise preference and social identity

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EXERCISE PREFERENCE AND SOCIAL IDENTITY

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ABSTRACT

The purpose of the present investigation was to examine the relationship between exercise preference and social identity. In an effort to explore this relationship, the current study was conducted in two parts and attempted to determine the extent to which individuals with a specific exercise preference are associated with a set of stereotypical personality characteristics. In the first study, subjects consisted of 180 male and female University students who were asked to rate the participants of five different methods of exercise on 70 personality and identity dimensions. the five methods of exercise were as follows: bodybuilding, jogging, aerobics, swimming, and racquet ball. In the second study, subjects consisted of 90 male and female University students currently enrolled in a physical education class falling under the heading of one of the above listed methods of exercise. Subjects were asked to rate themselves according to the same list of personality descriptors as that used above. Results of the first study indicated that stereotypes ar associated with individuals engaging in some forms of exercise but not others. Results of the second study indicated that actual exercise participants associate themselves with differing sets of stereotypical personality characteristics. Subject ratings of hypothetical exercise participants differed from the self

ratings of actual exercise participants. Suggestions for further research as well as practical implications are discussed.

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INTRODUCTION

People choose to exercise for a variety of reasons, the most apparent of which are weight reduction and physical fitness. Today's health clubs offer the public a wide variety of exercise methods from which to choose. Although it is not clear what motivates an individual to choose one form of exercise over another it is suggested here that this choice may be jet another way of establishing and maintaining an aspect of ones personal and social identity. The underlying assumption is that there is a stereotypical set of characteristics associated with the participants of each particular method of exercise. Thus, an individual may choose a method of exercise that is associated with those characteristics that not only validate their image of self, but also conform to their desired social identity (Sadalla, Linder, and Jenkins, 1988).

Choosing a particular form of exercise could be said to fall within the realm of self-presentation. "Self-presentation" is being employed here in the sense that it is an attempt to control appearances (consciously and/or unconsciously) with the underlying goal of being viewed positively by others and by oneself (Weary & Arkin, 1981). This view of self-presentation has also been referred to as "impression management" or "ingratiation" (Baumeister, 1982). A vast body of literature exists in which self-

presentational motives are shown to be related to a wide range of social behaviors. Self-presentation has been investigated in relation to conformity. task performance, helping behavior, attributional statements, aggression, and much more (e.g. Brown, 1968; Deutsch & Gerard, 1955; Paulus & Murdock, 1971; Satow, 1975; Weary, 1980).

Although individuals who exercise do not have a clearly defined audience as do sport participants (Mumford, 1934), exercising in a health club cannot be viewed as a totally anonymous event. It is a setting where there is ample opportunity to observe others, be observed, and to engage in social interaction. In terms of self-presentation, behavior can be employed as a method of communicating information about self to others (Weary & Arkin, 1981). Moreover, one of the primary motives for engaging in self-presentation is to create an image in the eyes of the public that closely resembles one's ideal sense of self (Baumeister, 1982). Hence, an individual may choose a particular form of exercise as a means of providing themselves with a positive self-image and communicating this desired image to and audience (Schlenker, 1985).

Of further significance is the investigative trend toward exploring the self-presentational aspects of attribution. The question frequently raised is to what extent do individuals present themselves with the goal of controlling attributions made by self and others (Harvey,

Ickes, & Kidd, 1978)? It has been suggested that self-perception and perception-of-self by others are similar in that both utilize overt behavior for making attribution (Bem, 1972; Weary & Arkin, 1981). In other words, individuals may gain insight into themselves by observing their own behavior. Therefore, overt behaviors may play an important role not only in how people are perceived by others, but also in how they perceive themselves. This becomes important in view of exercise being an overt behavior. If an individual is viewed engaging in a particular method of exercise, his/her perception of self and how he/she is perceived by his/her audience may be affected.

Unfortunately, it is difficult to determine whether people choose to engage in certain behaviors as a result of their already existing characteristics, or because they wish to be associated with those characteristics. The issue of whether people possess an underlying set of enduring personality traits or acquire characteristics through learning/behavior, has yet to be resolved (Bierhoff, 1989; Harvey, Ickes, & Kidd, 1978; Weary & Arkin, 1981). On the one hand, an individual may desire the characteristics associated with the participants of a particular method of exercise. Thus, by engaging in that method he/she is able to observe his/her own behavior and attribute the desired characteristics to him/herself, and have those character-

istics attributed to him/her by others (Bem, 1972). Hence, his/her self-perception is altered as a result of the new behaviors. In contrast, it may be that the individual already possesses the desired characteristics and chooses to engages in a method of exercise because of its compatibility with how he/she perceives him/herself and as a means for validating this already established sense of self (Baumeister, 1982).

Moreover, this debate continues in the sport psychology literature and is commonly referred to as the "skeptical-credulous" dichotomy (Alderman, 1974; Carron, 1980; Cox, 1990; LeVnes & Nation, 1989). Proponents of the "skeptical" viewpoint reject the "trait" approach in the study of sport and minimize the value of personality assessment as a predictive tool (Gill, 1986; Kroll, 1970; Singer, 1980). In contrast, supporters of the "credulous" perspective support the idea that accurate predictions can be made regarding sport participants from personality profiles based on measured traits (Kane, 1980; Morgan, 1980). Thus, it would seem that at present there is little agreement as to what determines sport preference/ performance. The idea that we can get to know someone by observing their behavior is not a new one. It has been suggested that an individual's conduct is one among many clues that can aid an observer in predicting present and future behaviors. An additional clue is an individuals self-description. We can often gain

insight into people by listening to the way in which they describe themselves (Weary & Arkin, 1981). These clues allow the observer to make assumptions based on prior experiences with similar individuals, as well as to apply untested stereotypes to the person (Goffman, 1959). Thus, an individual who includes in his/her self description information regarding exercise preference may be providing the observer with a base from which to make assumptions and apply stereotypes.

Although there is a scarcity of literature regarding stereotypes associated with the participants of different forms of exercise, research looking at the stereotypes associated with sport participation is becoming more readily available (e.g. Clingman & Hilliard, 1988; Eby & Van Gyn, 1987; Meyers, Sterling, & LeVnes, 1988). Moreover, a recent investigation examining housing appears to be relevant to the current topic. In their study of identity symbolism in housing, Sadalla, Vershure, and Burroughs (1987) employed a model based on role theoretical and symbolic interactionist frameworks. Subjects consisted of 12 homeowners who rated themselves according to 36 personality traits listed in a 9-point, bipolar scale format. Slides of the interior and exterior of each participant's house were shown to 99 undergraduate students at Arizona State University. The students were then asked to rate the homeowners according to the same set of 36 personality and identity dimensions.

Results indicated a correspondence between homeowner self-identity ratings and student ratings of the homeowners. This suggests that housing choice may be a means for self-identification and self-presentation.

Much of the research in the area of sport participation has been aimed at identifying the general personality characteristics of different athletic groups. Eby and Van Gyn (1987) investigated the relationship between the occurrence of Type A personality traits (e.g. obsessiveness, punctuality, aggressiveness) and participation in varsity athletics. The Bortner 14-item Self-Rating Scale was administered to 513 male and female University students and 135 male and female varsity athletes. Subjects in the athlete group were participants in one of the following seven sports: volleyball, basketball, rowing, field hockey, soccer, rugby, or cross-country running. Results revealed a significantly higher incidence of the Type A behavior pattern in varsity athletes as compared to the normal student population. Occurrence of the Type A pattern did not differ as a function of sport or gender.

Clingman and Hilliard (1987) examined certain general personality characteristics in athletes who were participants in either a swimming meet, a bicycle race, a running race, or a triathlon. Jackson's Personality Research Form was administered to 227 males and 63 females participating in the above listed athletic events. Results

revealed significant differences among groups in terms of general personality characteristics (e.g. aggression, autonomy, harm avoidance). Although personality characteristics differed as a function of sport and gender, many similarities were observed as well. A comparison between the athletes as a group and the general population revealed significant differences in associated personality characteristics (e.g. achievement, aggression, autonomy).

Furthermore, Meyers, Sterling, and LeVnes (1988) compared the psychological characteristics of collegiate rodeo athletes with previous research on elite athletes, collegiate athletes in other sports, and established college norms. Subjects consisted of 34 male and female members of the National Intercollegiate Rodeo Association who were administered the Eysenck Personality Inventory and the Profile of Mood States. Results indicated that intercollegiate rodeo contestants possess significantly different characteristics (e.g. extraversion, vigor, depression, conformity) than those of the college norms. Rodeo athletes were found to have similar scores to those obtained in studies with football players, body builders, cyclists, and runners. Comparisons made among the different rodeo events revealed that female rodeo performers scored significantly higher in neuroticism than males. Comparisons with prior research indicated that rodeo participants may be similar to those athletes judged as successful.

Moreover, Clingman and Hilliard (1988) conducted a two part study in which the self-perceptions of athletes were compared to the non-athlete perceptions of hypothetical sport participants. In the first phase of the study, 216 male and female University undergraduates were given the opportunity to rate the description of a stimulus person according to a list of characteristics. The stimulus persons were described as triathlon participants who finished in either the bottom, middle, or top third of the competition. Only those subjects who did not engage in regular exercise were included in the study. Results revealed that the most successful triathletes were viewed as being more competitive, health, happy, compulsive, and selfish than the less successful triathletes.

In the second phase of the study, 118 male and female triathlon participants rated themselves according to the same dimensions as employed in the above study. The self-ratings were divided in terms of the triathletes' actual finish time in the Tampa Bay Triathlon (i.e. bottom, middle, or top third). Results revealed no variation in athletes' self-perceptions as a function of level of success. Triathletes self-ratings were compared with the evaluations made of the hypothetical triathletes. Significant differences were found between the self-perceptions of those who participate and the judgements made about them by those who do not. For example, hypothetical participants who

finished in the top third of the race were rated as being the happiest and most competitive. In contrast, actual participants viewed themselves as being happy and competitive regardless of finishing position.

The research that has been done regarding the stereotypes associated with exercise participants appears to be confined primarily to the realm of bodybuilding. Freeman (1988) conducted two experiments designed to investigate the stereotypical characteristics associated with bodybuilders. In the first study, 97 male and female college students were provided with a brief description of a person and were asked to fill out a 26-item questionnaire in which they estimated the probability of the individual engaging in gender-related role behaviors and possessing gender-related characteristics. The description of the person was varied according to gender and whether they engaged in bodybuilding. Results suggested that the label of bodybuilder influenced subjects' ratings with regard to gender-related characteristics. Both male and female bodybuilders were associated with masculine role behaviors and were rated as less likely to engage in feminine occupations.

In the second study conducted by Freeman (1988), 70 male and female college students were asked to rate the photographs of three women in bathing suits. The three women had previously been designed as either high attractive, less attractive, or bodybuilder. Subjects rated

the photographs in terms of physical attractiveness, socially desirable personality traits, and life success. Results indicated that the female bodybuilder was viewed as significantly less attractive and as possessing less socially desirable personality characteristics (e.g. insensitive, awkward, boring) than the non-bodybuilder who was high in attractiveness. Moreover, she was expected to have less happiness in marriage than both the high attractive and less attractive non-bodybuilders.

Finally, Sadalla, Linder, and Jenkins (1988) investigated the relationship between sport preference and social identity utilizing the same theoretical model as presented in the Sadalla et. al. (1987) study. In the first phase of the study, a list of 70 bipolar personality descriptors was developed through the use of Kelly's Repertory Grid Methodology. Each of 150 male and female undergraduate students were presented with the preferred sports of five hypothetical individuals. They were asked to compare three of the individuals at a time describing a way in which two were alike and different from a third. Through this methodology, each subject generated a total of five personality descriptors.

In the second phase of the study, 250 male and female Introductory Psychology students from Arizona State University served as subjects. Five groups were formed and each was given the description of a hypothetical person who

was said to be a participant in one of five sports: golf, bowling, tennis, motocross, racing, or snow skiing. Each participant was then asked to rate the hypothetical person according to the list of 70 bipolar personality descriptors arranged in a 5-point scale format. Findings indicated that participants in each sport were associated with differing sets of identity characteristics (e.g. honesty, calmness, attractiveness).

The purpose of the present investigation was to determine whether specific personality characteristics are associated with individuals who are described as participating in a particular method of exercise. In order to study this phenomenon, the current investigation employed a methodology similar to Sadalla, Linder, and Jenkins (1988). However, in addition to substituting exercise for sport, the present investigation conducted a second study in which actual exercise participants were given the opportunity to rate themselves as was done in the Clingman and Hilliard (1988) study. Because of the obvious similarities between exercise and sport, the list of 70 bipolar adjectives developed by Sadalla et. al. (1988) were employed. Based on the results of prior research, it was predicted that subjects would associate specific personality characteristics with individuals involved in a particular method of exercise. For example, the findings of Freeman (1988) suggest that bodybuilders would be associated with

more masculine characteristics. It was further predicted that actual exercise participants would rate themselves as possessing characteristics congruent with those obtained above.

STUDY 1

Subjects

Subjects consisted of 198 male and female Introductory Psychology students form California State University, San Bernardino. The mean age of the population sampled was 21 with a standard deviation of 6. In an effort to establish equal sample sizes for all groups, 18 of the original 198 subjects were randomly dropped from consideration. This resulted in a sample consisting of 180 (62 male and 118 female) subjects for the final analysis. This procedure was implemented in order to avoid the disadvantages inherent in running statistical procedures on heterogeneous samples (for a more thorough discussion see Rosenthal & Rosnow, 1984).

Procedure

Each subject was given a brief description of a participant in a particular method of exercise. Five randomly assigned groups were formed each of which differed in terms of the method of exercise with which the individual in the description was said to be associated. The five methods of exercise were as follows: aerobics, bodybuilding, swimming, jogging, and racquet ball. The descriptions of the five hypothetical individuals are

presented in Appendix A.

Participants were administered written information including instructions as well as the general purpose of the task (see Appendix B for written information). Along with this information, subjects were provided with the list of 70 personality descriptors developed by Sadalla et. al., (1988). Each subject rated one hypothetical individual according to a five-point scale format. The bipolar adjectives are listed in Appendix C.

Results

A principle components analysis (PCA) employing a varimax rotation to orthogonal coordinates was performed to determine the personality characteristics associated with the five different categories of exercise. The PCA grouped 45 of the personality dimensions into 14 smaller sets of related variables accounting for 68% of the total variance. The first five of the original factors were maintained as they contained 32 personality dimensions and accounted for 50% of the total variance. Those dimensions not associated with the first five factors were dropped from consideration. The five factors and the dimensions contributing to each factor are presented in Table 1 along with the factor loadings greater than .50.

Table 1

Varimax Factor Loadings Graduate than .50 for Stereotypes Associated with Method of Exercise

Item	Trustworthy 1	Daring-Innovative 2	Athletic-Outdoorsy 3	Courageous-Masculine 4	Attractive-Romantic 5
1. Trustworthy	.81				
2. Honest	.80				
3. Respectful	.72				
4. Sincere	.67				
5. Religious	.58				
6. Mature	.58				
7. Open-Minded		.71			
8. Innovative		.68			
9. Imaginative		.68			
10. Flexible		.67			
11. Witty		.62			
12. Friendly		.55			
13. Exciting		.55			
14. Daring		.54			
15. Energetic			.76		
16. In-Shape			.76		
17. Active			.69		
18. Coordinated			.65		
19. Athletic			.62		
20. Outdoorsy			.62		
21. Shapely			.56		
22. Tough				.78	
23. Macho				.78	
24. Dominant				.67	
25. Strong				.66	
26. Masculine				.61	
27. Courageous				.56	
28. Aggressive				.55	
29. Sexy					.73
30. Attractive					.71
31. Good Looking					.61
32. Romantic					.51

Factor 1 (Trustworthy) accounted for 26% of the total variance and contains characteristics such as maturity and honesty. The second factor (Daring-Innovative) accounting for 13% of the total variance, contains items such as

imaginative, exciting and open-minded. Factor three (Athletic-Outdoorsy) accounted for 5% of the total variance and contains characteristics such as active, in-shape, and energetic. Factor four (Courageous-Masculine), accounting for 4% of the total variance, contains items such as dominant, strong, and macho. The fifth factor (Attractive-Romantic) accounted for 2.9% of the total variance and contains characteristics such as good looking, sexy, and romantic.

In order to determine whether subjects associated specific personality characteristics with the five hypothetical exercise participants, a 5(exercise type) x 5(factors) MANOVA was performed, which was significant [Hotelling's $T^2=137.436$; $\chi^2(16.818)=117.88, p<.001$]. Univariate Analyses were then computed for each factor. Only differences among factors four (Courageous-Masculine) and five (Attractive-Romantic) were significant [$F(4,175)=9.94, p<.001$ and $F(4,175)=4.14, p<.003$, respectively]. Planned tests using Tukey's HSD method revealed that subjects rated the hypothetical bodybuilders as possessing significantly more of the characteristics along the Courageous-Masculine dimension that aerobics participants ($^qHSD=2.96, M_D=6.00, p<.05$), joggers ($^qHSD=2.96, M_D=5.25, p<.05$), racquet ball players ($^qHSD=2.96, M_D=4.83, p<.05$), and swimmers ($^qHSD=2.96, M_D=4.75, p<.05$). The hypothetical description of an individual engaging in

aerobics was rated as possessing significantly more of the characteristics along the Attractive-Romantic dimension than both joggers ($^{q}HSD=1.81, M_D=2.50, p<.05$) and racquet ball players ($^{q}HSD=1.81, M_D=1.89, p<.05$). Subjects mean ratings of the five hypothetical exercise participants are presented in Table 2.

In summary, subjects rated the hypothetical body-builders as possessing significantly more of the characteristics along the Courageous-Masculine dimension than the remaining four exercise groups. The hypothetical description of an individual engaging in aerobics was rated as possessing more of the characteristics along the Attractive-Romantic dimension than both joggers and racquet ball players.

Table 2

Subjects' Mean Ratings of the Five Hypothetical Exercise Participants

	Method of Exercise				
Descriptors	Aerobics	Bodybuilding	Jogging	Racquet Ball	Swimming
Trustworthy					
Trustworthy	3.03	2.89	2.86	2.67	2.61
Honest	2.97	2.86	2.72	2.69	2.64
Respectful	2.75	3.03	2.61	2.50	2.44
Sincere	2.86	3.08	2.69	2.64	2.72
Religious	3.39	3.22	3.11	3.06	2.83
Mature	2.69	2.83	2.47	2.39	2.58
Daring-Innovative					
Open-minded	2.69	3.25	2.67	2.81	2.94
Innovative	2.75	3.03	2.86	2.75	2.75
Imaginative	2.72	3.14	3.11	2.86	3.14
Flexible	2.17	3.11	2.42	2.39	2.81
Witty	2.56	3.19	2.92	2.58	2.72
Friendly	2.28	2.72	2.36	2.28	2.28
Exciting	2.33	2.75	2.81	2.56	2.69
Daring	2.61	2.19	2.78	2.61	2.81
Athletic-Outdoorsy					
Energetic	1.58	1.64	1.61	1.58	1.53
In Shape	1.64	1.50	1.61	1.67	1.44
Active	1.75	1.89	1.58	1.78	1.72
Coordinated	1.81	2.22	2.08	1.94	1.67
Athletic	1.89	1.78	1.78	1.64	1.67
Outdoorsy	2.25	2.39	1.92	2.25	2.00
Shapely	1.89	1.86	1.97	2.03	1.92
Courageous-Masculine					
Tough	2.69	1.72	2.39	2.58	2.47
Macho	2.81	1.58	2.72	2.53	2.58
Dominant	2.42	1.78	2.53	2.44	2.61
Strong	2.28	1.58	2.17	2.25	1.94
Masculine	3.14	1.81	2.53	2.50	2.53
Courageous	2.58	2.22	2.47	2.61	2.44
Aggressive	2.25	1.67	2.36	2.08	2.31
Attractive-Romantic					
Sexy	2.17	2.50	2.89	2.78	2.39
Attractive	1.97	2.42	2.64	2.33	2.58
Good Looking	2.25	2.64	2.94	2.72	2.47
Romantic	2.56	3.17	2.97	3.00	2.56

Note. Mean values shown are from 5-point bipolar scales. A scale value of 1.00 refers to the anchor descriptor listed in the table.

STUDY 2

Subjects

Subjects consisted of 99 male and female students enrolled in physical education classes at California State University, San Bernardino. The mean age of the population sampled was 21 with a standard deviation of 6. Subjects were drawn from classes falling under the heading of one of each of the five categories of exercise employed in the first study. In an effort to establish equal sample sizes for all five groups, 9 subjects were randomly dropped from consideration resulting in a sample consisting of 90 (35 male and 55 female) subjects for the final analysis. This procedure was implemented in order to avoid the disadvantages inherent in running statistical procedures on heterogeneous samples (for a more thorough discussion see Rosenthal & Rosnow, 1984).

Procedure

Participants were administered written information including instructions as well as the general purpose of the task (written information is included in Appendix D). As in the first study, subjects were provided with the list of 70 personality descriptors developed by Sadalla et. al. (1988). Participants were asked to rate themselves on a 5-point scale according to the list of bipolar adjectives.

Results

A principle components analysis (PCA) employing a

varimax rotation to orthogonal coordinates was performed to determine the personality characteristics associated with the five different categories of exercise. The PCA performed on actual exercise participant ratings yielded an uninterpretable pattern of results. Thus, in order to determine whether the actual exercise participants rated themselves as possessing a stereotypical set of characteristics, a 5(exercise type) x 5(factors) MANOVA was performed using the five factors obtained in Study 1. The MANOVA yielded significant results [Hotelling's $T^2=54.0608$, $\chi^2(13.934)=38.13, p<.001$]. Univariate analyses were then computed for each factor. Significant differences were obtained for factors two (Daring-Innovative), three (Athletic-Outdoorsy), four (Courageous-Masculine), and five (Attractive-Romantic) [$F(4,85)=4.43, p<.003$; $F(4,85)=4.03, p<.005$; $F(4,85)=4.86, p<.001$; and $F(4,85)=2.92, p<.03$, respectively]. Planned tests using Tukey's HSD method revealed that subjects enrolled in the swimming class rated themselves as possessing significantly more of the characteristics along the Daring-Innovative dimension than did joggers ($_qHSD=3.42, M_D=4.39, p<.05$), racquet ball players ($^qHSD=3.42, M_D=3.50, p<.05$), and aerobics participants ($^qHSD=3.42, M_D=4.39, p<.05$). Swimmers also rated themselves as possessing more of the qualities contained in the athletic-Outdoorsy factor than did individuals enrolled in the aerobics class ($^qHSD=4.02, M_D=5.34, p<.05$.). Both swimmers

and bodybuilders rated themselves as possessing more of the Courageous-Masculine characteristics than did individuals engaging in aerobics ($^{q}HSD=3.92, M_D=5.11, p<.05$ and $M_D=5.11$, $p<.05$, respectively). Finally, the swimming group rated themselves as possessing more of the Attractive-Romantic characteristics than subjects in the racquet ball group ($^{q}HSD=2.52, M_D=2.94, p<.05$). Subjects' mean self-ratings on the above discussed factors are presented in Table 3.

In summary, subjects enrolled in the swimming class rated themselves as possessing more of the characteristics along the Daring-Innovative dimension than did the remaining four groups. Swimmers also rated themselves as possessing more of the qualities contained in the Athletic-Outdoorsy factor than did individuals enrolled in the aerobics class. Both swimmers and bodybuilders rated themselves as possessing more of the Courageous-Masculine characteristics than did individuals engaging in aerobics. Finally, the swimming group rated themselves as possessing more of the Attractive-Romantic characteristics than subjects in the racquet ball group.

Table 3

Subjects Mean Self Ratings

Descriptors	Aerobics	Bodybuilding	Jogging	Racquet Ball	Swimming
Trustworthy					
Trustworthy	1.33	1.28	1.33	1.61	1.44
Honest	1.39	1.28	1.39	1.56	1.83
Respectful	1.72	1.83	1.67	1.39	1.61
Sincere	1.50	1.67	1.61	2.00	1.78
Religious	2.44	2.83	2.50	2.44	2.72
Mature	1.78	1.61	1.83	1.89	1.78
Daring-Innovative					
Open-minded	1.89	1.89	1.78	2.00	1.33
Innovative	2.56	2.44	2.39	2.22	1.78
Imaginative	2.06	2.00	2.78	1.94	1.67
Flexible	2.44	1.94	2.17	2.33	1.83
Witty	2.33	1.89	2.17	1.89	1.67
Friendly	1.67	1.61	1.94	1.56	1.28
Exciting	2.17	2.11	2.44	2.22	1.61
Daring	2.61	2.39	2.56	2.67	2.17
Athletic-Outdoorsy					
Energetic	2.33	2.17	1.89	2.11	1.94
In Shape	2.89	2.33	2.39	3.17	2.06
Active	2.22	1.94	2.00	2.44	1.39
Coordinated	2.67	1.89	1.89	1.89	2.00
Athletic	3.28	2.33	2.44	2.33	1.89
Outdoorsy	2.56	2.39	2.17	2.50	2.11
Shapely	2.72	2.33	2.28	2.56	1.94
Courageous-Masculine					
Tough	3.28	2.28	2.67	2.44	2.28
Macho	2.72	2.67	2.94	2.89	2.78
Dominant	2.61	2.44	2.83	2.28	2.39
Strong	2.78	1.94	2.50	2.39	1.94
Masculine	4.17	2.67	3.00	3.50	2.61
Courageous	2.44	2.17	2.33	2.44	2.00
Aggressive	2.83	2.28	2.78	2.61	2.44
Attractive-Romantic					
Sexy	2.28	2.33	2.28	2.83	2.00
Attractive	2.44	2.39	2.17	2.50	1.83
Good Looking	2.67	2.61	2.17	2.78	1.78
Romantic	1.61	2.00	1.94	2.11	1.67

Note. Mean values shown are from 5-point bipolar scales. A scale value of 1.00 refers to the anchor descriptor listed in the table.

In an effort to determine whether the self-ratings of subjects enrolled in the physical education classes differed from ratings applied to the hypothetical exercise participants in the first study, a 2(actual exercise participants vs. hypothetical participants) x 5(factors) MANOVA was performed for each method of exercise. For aerobics, the MANOVA was significant [Hotelling's T^2 =92.7512, $F(5,48)=17.12, p<.001$]. Univariate ANOVA's were significant for factors one (Trustworthy) and three (Athletic-Outdoorsy) [$F(1,52)=38.94, p<.001$ and $F(1,52)=12.96, p<001$, respectively], with the actual aerobics participants rating themselves as possessing more of the Trustworthy characteristics and less of the Athletic-Outdoorsy characteristics than was attributed to the hypothetical exercise participants. For bodybuilding, the MANOVA was significant [Hotelling's $T^2=98.477, F(5,48)$ $=18.18, p<.001$]. Univariate ANOVA's revealed significant differences for factors one (Trustworthy), two (Daring-innovative), and four Courageous-Masculine) [$F(1,52)=45.93, p<.001$; $F(1,52)=17.28, p<.001$; and $F(1,52)=$ $9.27, p<.004$, respectively], with the actual bodybuilders rating themselves as possessing more of the Trustworthy and Daring-Innovative characteristics, and less of the Courageous-Masculine characteristics than was the case for the hypothetical participant ratings. for jogging, the MANOVA was significant [Hotellings' $T^2=68.212$, $F(5,48)=$

12.59,p<.001]. Univariate ANOVA's were significant for factors one (Trustworthy), two (Daring-Innovative), three (Athletic-Outdoorsy), and five (Attractive-Romantic) [F(1,52=47.90,p<.001; F(1,52=8.07,p<.006; F(1,52)=5.00, p<.03; and F(1,52)=14.66,p<.001, respectively], with the actual joggers rating themselves as possessing more of the Trustworthy, Daring-Innovative, and Attractive-Romantic characteristics, and less of the Athletic-Outdoorsy characteristics than was attributed to hypothetical joggers. For racquet ball, the MANOVA was significant [Hotelling's T^2 =63,556,F(5,48)=11.73,p<.001]. Univariate ANOVA's were significant for factors one (Trustworthy), two (Daring-Innovative), and three (Athletic-Outdoorsy) [F(1,52)=32.05,p<.001; F(1,52=9.23,p<.004; and F(1,52) =10.72,p<.002, respectively], with the actual racquet ball players rating themselves as possessing more of the Trustworthy and Daring-Innovative characteristics, and less of the Athletic-Outdoorsy characteristics than was the case for hypothetical participant ratings. For swimming, the MANOVA was significant [Hotelling's T^2=65.595,F(5,48)=12.00, p<.001]. Univariate ANOVA's were significant for factors one (Trustworthy), two Daring-Innovative), and five (Attractive-Romantic) [F(1,52)=16.95,p<.001; F(1,52)=33.13, p<.001; and F(1,52)=15.97,p<.001, respectively], with the actual swimmers rating themselves as possessing more of the characteristics along the Trustworthy, Daring-Innovative,

and Attractive-Romantic dimensions than was attributed to the hypothetical swimmers (see Table 2 and Table 3 for mean ratings).

In summary, results revealed significant differences between groups for all five factors. All five of the actual exercise groups rated themselves as possessing more of the qualities contained in the Trustworthy factor than was found in subjects ratings of hypothetical exercise participants. The actual bodybuilders, swimmers, racquet ball players, and joggers rated themselves as being more Daring-Innovative than was the case for the hypothetical participant ratings. Individuals engaging in aerobics, jogging, and racquet ball rated themselves as being less Athletic-Outdoorsy than hypothetical participant ratings. Subjects rated the hypothetical bodybuilders as possessing more of the Courageous-Masculine characteristics than actual body-builders attributed to themselves. Finally, individuals in the swimming and jogging groups rated themselves as more Attractive-Romantic than was the case for ratings of hypothetical swimmers and joggers.

DISCUSSION

The results of the present investigation can be construed as only partially supporting the hypothesis that specific personality characteristics are associated with individuals engaging in different forms of exercise. Subjects clearly associated a stereotypical set of charac-

teristics with individuals described as engaging in bodybuilding. These hypothetical exercise participants were viewed as possessing significantly more of the characteristics along the Courageous-Masculine dimension than individuals engaging in the four remaining methods of exercise. Although individuals described as engaging in aerobics, jogging, racquet ball, and swimming received similar ratings along the Courageous-Masculine dimension, aerobics participants received the lowest rating overall for these characteristics. Thus, they were viewed as being least like bodybuilders in terms of stereotypical characteristics.

Further evidence of stereotyping was found for individuals engaging in aerobics in that they were rated as possessing more of the characteristics along the Attractive-Romantic dimension than both joggers and racquet ball players. Joggers received the lowest ratings along the Attractive-Romantic dimension. Bodybuilders and swimmers were rated similarly along the Attractive-Romantic dimension and did not differ significantly from aerobics participants.

Hence, the present results suggest that stereotypes exist for some methods of exercise but not others, and only in relation to two out of the five obtained factors. Moreover, it could be inferred that individuals participating in different methods of exercise are perceived as being more alike than not. Aside from the significant differences

already discussed, individuals engaging in the five forms of exercise were given similar ratings for factors one (Trustworthy), two Daring-Innovative), and three (Athletic-Outdoorsy). These findings clearly differ from those of Sadalla, Linder, and Jenkins (1988). Results of their investigation revealed significant differences among sport participants along all five obtained factors. Thus, associated stereotypes differed as a function of sport preference for all five exercise participant groups. Due to the nature of the obtained results, the present investigation is unable to make a similar statement.

With regard to the hypothesis predicting that actual exercise participants would rate themselves as possessing characteristics similar to those attributed to the hypothetical exercise participants, findings are somewhat mixed. Out of the five exercise groups, only bodybuilders rated themselves as possessing characteristics congruent with those obtained in the first study. These individuals rated themselves as being more aggressive, strong, masculine, courageous, tough, macho, and dominant than did people engaging in aerobics, jogging, and racquet ball. However, subjects rated the hypothetical bodybuilders as possessing more of the Courageous-Masculine characteristics than actual bodybuilders attributed to themselves. Therefore, the actual bodybuilders did not associate themselves as strongly with these characteristics as was the case in

the hypothetical participant ratings.

Furthermore, results of the multivariate analysis comparing the two groups revealed significant differences for all five factors. Although this finding was in the predicted direction, it is congruent with the results of Clingman and Hilliard (1988). They also found significant differences between athletes' self-ratings and ratings of hypothetical participants. Thus, actual exercise participants appear to perceive themselves as being associated with distinctly different characteristics than subjects attributed to the hypothetical exercise participants. However, it should be noted that results also suggest an interesting amount of overlap between actual and hypothetical participants. Significant differences were not obtained for all five groups on all five factors. Thus, if viewed from this perspective, it would appear that the present hypothesis is supported to a large degree.

Viewing the above finding from the perspective of self-presentation, it would appear that the relationship here is not a simple one. It was suggested earlier that choosing a form of exercise may serve the dual purpose of enhancing the participants image of self as well as communicating this desired image to an audience (Schlenker, 1985). However, it could be inferred from the present results that self-perception and perception-of-self by others may be two entirely different phenomena in the realm of exercise. In

other words, the self-image the exercise participant holds may not be what they are communicating to their audience. Moreover, it is difficult to determine which perspective would motivate their choice of exercise to begin with, that of the participant or the observer. It has been suggested that differences exist between attributions made by actors and those made by observers (Harvey, Ickes, & Kidd, 1978). One of the primary differences indicated is that actors tend to attribute their actions to situational requirements, whereas observers are more likely to attribute the same actions to stable personal dispositions (Bierhoff, 1989). Based on this idea, it could be inferred that the exercise participant would differ from the observer in terms of attributions made.

With regard to the present results, subjects rated the hypothetical joggers as possessing least of the characteristics along the Attractive-Romantic dimension. In contrast, the actual joggers rated themselves as possessing more of the characteristics along the Daring-Innovative and Trustworthy dimensions. With this in mind, it is difficult to imagine that an individual would choose jogging as their method of exercise if viewing it from the non-participant perspective. On the other hand, if the individual already perceives joggers from the participants perspective, their desire to engage in that form of exercise would make much more sense. As for whether this desired self-image would be

communicated to an audience, this would appear to be contingent upon whether or not that audience consisted of fellow joggers.

Whether a person is drawn to a particular form of exercise because they already possess the associated characteristics, or because they wish to acquire those characteristics is difficult to determine. As was suggested earlier, this is a controversy that is far from being resolved (Bierhoff, 1989; Harvey, Ickes, & Kidd, 1978; Weary & Arkin, 1981). An individual who perceives themselves as possessing certain personality characteristics may choose to engage in activities that serve to validate their perception of self (Baumeister, 1982). Research suggests that this may be accomplished not only through choice of sport, but also through preferences for food, beverage, and housing (Sadalla, Linder, & Jenkins, 1988). The present findings revealed that actual swimmers rated themselves as possessing more of the characteristics along the Attractive-Romantic, Daring-Innovative, Athletic-Outdoorsy, and Courageous-Masculine dimensions. It could be hypothesized that these individuals chose to engage in swimming because they already perceived themselves as possessing many of the desirable qualities of a swimmer. In this case, their choice would be based not only on an already established sense of self, but also on a desire to have that sense of self validated by others. Although the results obtained through subject

ratings of hypothetical participants provide little support for the existence of exercise stereotypes, actual exercise participants appear to share many common characteristics with individuals in their own exercise group. Thus, it could be speculated that these actual participants may have been drawn to, and chosen, a method of exercise that would validate an already existing sense of self.

Of further significance is the finding that subjects associated clear stereotypes with the hypothetical participants of aerobics and bodybuilding. The three remaining exercise groups were rated similarly in terms of the obtained factors. One important issue to be considered is the idea that both of these methods of exercise tend to be highly gender related. Bodybuilding has traditionally been a male dominated form of exercise and aerobics has typically been more popular with women. Thus, the finding that bodybuilders are stereotyped as more Courageous-Masculine and aerobics participants as more Attractive-Romantic may be the result of emerging gender-role stereotypes.

An additional explanation for the stereotypes applied to aerobic and bodybuilding participants is that subjects may have had more opportunity to observe individuals engaging in these forms of exercise. Aerobics is a popular form of exercise and is a common feature at most health clubs and on college campuses. Even if a person has never

participated in an aerobics class, they are likely to have had the opportunity to observe one. As for bodybuilders, by very nature of the exercise they engage in, they are more readily recognized by observable changes in body physic. And as with aerobics, bodybuilding is a common feature at most health clubs and on college campuses. Because exercise is an overt behavior, it could be said to be a means for making attributions about self and others (Bem, 1972); Weary & Arkin, 1981). As these two forms of exercise could be highly available to public scrutiny, it may be that individuals have had more opportunity to observe them and make attributions. Hence, this is one possible explanation for the distinctive stereotypes applied to individuals engaging in both aerobics and bodybuilding.

Because of the scarcity of research in the area of exercise preference, there are many avenues yet to be explored. As this study was restricted to a college student sample, generalizability of results is somewhat limited. In addition, although the present investigation chose to eliminate gender as a variable through the use of gender-neutral vignettes, this would appear to be an important variable in that some forms of exercise may be more gender-role stereotyped than others. Moreover, University students enrolled in physical education classes may not be representative of individuals who exercise in the general population. Their motive for taking the class may be merely

to fulfill the physical education requirement. Research evidence indicates that motives for participation in a competitive sport differ are a function of age (Brodkin & Weiss, 1990). The same may hold true for exercise participation. In addition, years of experience and overall dedication to exercise are also factors to be considered. A logical next step in the investigation of exercise stereotypes would be to go to the health clubs themselves. The five methods of exercise included in this investigation were chosen because they are made available in many modern health clubs. One such club in California offers facilities not only for racquet ball, swimming, and jogging, but also for aerobics and bodybuilding. Therefore, it would be interesting to determine whether the self-ratings of health club members are congruent with those of the current college student sample.

It has been suggested that stereotypical attributions may vary with the knowledge and attitudes of the observers (Salalla, et.al., 1988). Moreover, the stereotypes that people hold may be influenced by their own group affiliations (Babad, Birnbaum, & Benne, 1983). These would appear to be a reasonable assumptions in light of the fact that an individual who engages in a particular form of exercise on a regular basis has had more opportunity to interact with and observe fellow participants. This provides a plausible explanation for the significant

differences found between actual exercise participant self-ratings and subject ratings of hypothetical participants. The actual participants are likely to have had much more opportunity to interact, gain knowledge, and formulate attitudes regarding fellow participants. Furthermore, it may be that someone devoted to a single form of exercise holds less positive attitudes toward participants of alternate methods. Therefore, it would also be of interest to examine how health club members rate individuals who prefer a different method of exercise than their own. Finally, including a non-exercise group as was done in the Clingman and Hilliard (1988) study may prove to be informative. It may be that individuals who choose not to exercise hold different attitudes regarding those who do exercise.

A further methodological issue to be considered in the present investigation is that of sample size. Because this study employed a five group design, the number of subjects per cell was greatly reduced. Moreover, the use of a 70-item checklist suggests that a much larger sample size may have proven beneficial. These are significant limitations in terms of attempting to make valid interpretations from obtained results. A final consideration pertains to the use of the adjective checklist developed by Sadalla et.al., (1988). This rating scale was developed for use with sport participants. It may be that a scale of this nature was not

sensitive in terms of measuring stereotypes associated with exercise participants. Thus, future investigations may benefit from the use of an alternative measure developed specifically for exercise participants.

Continued research in this area could be beneficial in that it may result in practical applications. For example, health clubs may be able to maintain memberships for a longer period of time if they had a means of directing new members into the form of exercise that would best suit them. Moreover, it has been suggested that based on an individuals self-description, an observer can apply untested stereotypes and make assumptions based on prior experiences with similar individuals (Goffman, 1959). This becomes particularly significant in light of the fact that many employment and college applications include a section that asks for a description of outside activities. It is here that applicants have the opportunity to list the form of exercise in which they engage. Given this information, the reviewer of the application may make certain assumptions about the individual in addition to associating them with certain stereotypical characteristics. Furthermore, as was suggested by Sadalla et.al., (1988), the applicant may choose to leave this information out if they expect a negative reaction from the reviewer, or they may modify it in such a way as to enhance their desired image (e.g. claim a high degree of expertise or dedication). This, of course,

may apply to other daily interactions as well. Finally, it is hoped that the present investigation adds to the growing body of research devoted to examining the role of self-presentation in everyday life.

Appendix A

Five Hypothetical Exercise Participants

1. __X__ is a member of a local health club and engages in bodybuilding on a daily basis. __X__ subscribes to a couple of bodybuilding magazines and generally socializes with other bodybuilders.

2. __X__ is a member of a local health club and engages in aerobic classes on a daily basis. __X__ subscribes to a couple of aerobic magazines and generally socializes with other people who do aerobics.

3. __X__ is a member of a local health club and uses the club pool to swim laps on a daily basis. __X__ subscribes to a couple of swimming magazines and generally socializes with other swimmers.

4. __X__ is a member of a local health club and goes there to play racquet ball on a daily basis. __X__ subscribes to a couple of racquet ball magazines and generally socializes with other racquet ball players.

5. __X__ is a member of a local health club and uses the club track to jog on a daily basis. __X__ subscribes to a couple of jogging magazines and generally socializes with other joggers.

Appendix B

Written Information Administered to Subjects

Department of Psychology

California State University, San Bernardino

Participation Consent

I am a graduate student at CSUSB and am currently conducting research in an effort to fulfill the thesis requirement for the M.S. degree in counseling psychology. I am interested in understanding the relationship between exercise involvement and other personality characteristics. The central question being asked here is whether knowing someone engages in a particular method of exercise tell s us anything about their personality. You will be provided with a brief description of a person involved in one method of exercise. Please read the description carefully and then circle the personality rating in a way that you think best describes the person. Although some of the questions may seem to have little relation to exercise involvement, please answer them all as best you can.

The questionnaire will take approximately 15 minutes to complete. Your responses will be anonymous, and your participation is voluntary. You are free to discontinue participation in this study at any time. Upon completion of your participation additional explanations of this study may be obtained by contacting Misty Sherman at (714) 422-0642.

Your participation in this project is greatly appreciated.

Appendix C

List of Bipolar Adjectives

athletic-nonathletic

aggressive-passive

good taste-poor taste

sexy-not sexy

honest-dishonest

fast-slow

tactful-tactless

friendly-unfriendly

cultured-uncultured

formal-informal

relaxed-tense

mature-immature

patient-impatient

careful-careless

calm-nervous

young-old

confident-timid

macho-wimpy

courageous-fearful

wealthy-poor

sensual-ascetic

witty-boring

masculine-feminine

shapely-unshapely

energetic-lazy

imaginative-unoriginal

dominant-submissive

traditional-faddish

outdoorsy-homebody

strong-weak

flexible-rigid

tough-delicate

brave-coward

sincere-insincere

attractive-plain

in shape-out of shape

exciting-dull

active-passive

refined-crude

modest-boastful

Appendix C (cont.)

List of Bipolar Adjectives

daring-conservative	extrovert-introvert
happy-unhappy	natural-artificial
white collar-blue collar	respectful-disrespectful
romantic-unromantic	coordinated-uncoordinated
spontaneous-predictable	independent-conformist
innovative-not innovative	even tempered-hot temp
trustworthy-not trustworthy	sophisticated-unsophisticated
conventional-unorthodox	intelligent-unintelligent
openminded-closeminded	competent-incompetent

Appendix D

Written Information Administered to Subjects

Department of Psychology

California State University, San Bernardino

Participation Consent

I am a graduate student at CSUSB and am currently conducting research in an effort to fulfill the thesis requirement for the M.S. degree in counseling psychology. I am interested in understanding the relationship between exercise involvement and other personality characteristics. The central question being asked here is whether knowing someone engages in a particular method of exercise tell s us anything about their personality. You will be provided with a form asking you a few general questions about yourself. After competing the general information form, you will be asked to turn the page and rate your own personality on the additional forms provided. Although some of the questions may seem to have little relation to exercise involvement, please answer them all as best you can.

The questionnaire will take approximately 15 minutes to complete. Your responses will be anonymous, and your participation is voluntary. You are free to discontinue participation in this study at any time. Upon completion of your participation additional explanations of this study may be obtained by contacting Misty Sherman at (714) 422-0642.

Your participation in this project is greatly appreciated.

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